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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,792	06/28/2001	Xiong Liu	STL9862/40176.59USU1	8303
23552	7590	12/18/2003	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SNIEZEK, ANDREW L	
			ART UNIT	PAPER NUMBER
			2651	6

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/896,792

Applicant(s)

LIU ET AL.

Examiner

Andrew L. Snizek

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-13, 15 and 19-23 is/are rejected.
- 7) ☒ Claim(s) 7-9, 14, 16-18, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed 8/2/01 has been considered.

### *Drawings*

2. The drawings filed 6/28/01 are acceptable by the examiner.

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-6, 10-13, 15 and 19-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ehrlich et al.

Ehrlich et al. teaches a hard disk drive that includes a method of servo writing a disk with a head that includes a radial offset between a read element and a write element (see figures 1, 2 and column 10, lines 28). As disclosed the initial servo pattern (22) is read which is then used to write additional servo patterns (26 and 24) for all servo wedges (25) as shown in figure 2. The limitations of claim 1 are satisfied by this teaching. As discussed in column 15, line 49 - column 16, line 24, the final burst for each servo sector are written with a single revolution as set forth in claim 2. The limitations of claim 3 are satisfied by figure 1 (sectors 22 which are comprised of servo wedges A-C). During the writing of servo wedges while the disk drive is in a self servo writing environment (out of the servo track writer (STW)), a plurality of servo wedges (at least four) as depicted in figure 6B are written satisfying the limitations of claim 4. For example the

fourth servo wedge as claimed could be considered the first servo wedge that is recorded by the system as taught by Ehrlich et al. These servo burst are recorded with respect to a track center and therefore inherently provide a recording head position with respect to track center as set forth in claim 5. The limitations of claim 6 are deemed satisfied by the applied art since the servo burst that are written by the STW are read to write all further bursts. Claims 10, 11, 13 and 15 set forth substantially the same limitations as those of claims 1, 2, 4 and 6 however written in structural form. These claims are rejected for the same reasons as given with respect to claims 1, 2, 4 and 6 with the addition of the following structural elements to perform the claimed function. The claimed one or more discs, the head the read/write channel are satisfied by elements (12), (15) and (51) respectively. The limitations of claim 12 directed to multiple servo wedges are deemed satisfied by the arrangement as depicted in figure 6B. Claims 19-23 are deemed to set forth no more than that discussed above with respect to claims 1-6, 10-13 and 15 and are therefore rejected to similar reasons. The claimed means for writing is interpreted as the head comprised of the head and write elements as taught by Ehrlich et al.

***Allowable Subject Matter***

Claims 7-9, 14, 16-18, 25 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
The specific times in which the first servo wedge is read and the second and third servo wedges are written as set forth in claims 7/1, 8/1, 16/10 and 17/10 is neither taught by nor an obvious variation of the art of record. The additional manner in which the first servo wedge is read as set

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The use of a memory as set forth in claims 14/10 and 24/20/19 is neither taught by nor an obvious variation of the art of record.

*Conclusion*

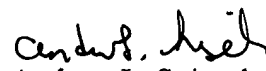
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Krounbi et al. is cited as disclosing a similar self-servo writing arrangement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Snizek whose telephone number is 703-308-1602.

The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

  
Andrew L. Snizek  
Primary Examiner  
Art Unit 2651

A.L.S.  
December 12, 2003